

**What is claimed, is**

1. A method for the color correction of digital image data generated by spectral absorption of white light in color filters of a first representation means, the method comprising the following steps:
  - (a) detection of the primary color values of the image data, the primary color values being related to the first representation means,
  - (b) correction of the primary color values in order to generate secondary color values, which are related to a second representation means and which take account of the absorption of light in secondary densities of the color filters,
  - wherein
  - (c) a plurality of absorption spectra are generated for different densities of at least one color filter, and
  - (d) the spectral profile of the absorption spectra of the color filters influences the correction of the primary color values for generating the secondary color values.
2. The method as claimed in claim 1, wherein intermediate spectra are calculated from the plurality of absorption spectra for different densities of the color filter.
3. The method as claimed in claim 1, wherein a plurality of absorption spectra are generated for all the color filters.
4. The method as claimed in claims 2 and 3, wherein intermediate spectra are calculated for all the color filters.
5. The method as claimed in claim 4, wherein the spectra of the color filters are convolved with the

spectral perception curve of a standard observer in order to generate the secondary color values.

6. The method as claimed in claim 4, wherein the  
5 transmission of neutral filters of different density of the first representation means is measured in order to determine the density distribution of different colorants in the first representation means.

10

7. A video system comprising:

at least one input for receiving incoming video data, said incoming video data characterized by a first set of color characteristics;

15

at least one output for delivering outgoing video data to a display device, said outgoing data characterized by a second set of color characteristics;

at least one database storing a plurality of sets of color characteristics;

20

at least one processor (15) coupled to said database for converting said incoming video data into outgoing video data as a based upon at least one of said sets of characteristics stored in said database.